ORIGINAL ARTICLES

From the International Society for Cardiovascular Surgery

Presidential address: A team for the 21st century: The vascular center

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It has been an extraordinary privilege to serve as your secretary, president-elect, and, finally, president; it has been an opportunity that has provided me with a unique perspective, spanning 6 years of unprecedented growth. From the original Band of Brothers, our specialty through the joint societies has matured into a complex, politically active team, far more capable of representing our diverse interests in this rapidly changing environment. Exciting advances in technology have unfortunately been tempered by draconian reductions in health care spending, the effects of which we have only begun to feel. I would like to briefly emphasize some of the important areas of our societies' growth and, in so doing, underscore a strategy about which I've felt strongly for nearly two decades. I believe that full implementation of a disease-focused team approach that transcends the boundaries of conventional disciplines will best ensure optimal cost-effective patient care.

The Lifeline Foundation has established an effective effort designed to support our young investigators and to teach basic vascular cell and wall biology. The Foundation has accumulated assets of more than $3 million and has developed more appropriate governance, representative of both industry and academia. Our Research and Education Committee has been folded into the Lifeline Foundation to provide appropriate expertise for critical evaluation of grant proposals and submissions for the Research Forum. In collaboration with the William J. Von Liebig Foundation, the Lifeline Foundation and the National Institutes of Health jointly sponsor two K-08 awards each year in the amount of $150,000 for 5 years. Our young surgeon-scientists are thus ensured an opportunity to develop the competitive credibility for participation in independent or multidisciplinary basic science investigations. The Lifeline Foundation, through its industrial representatives, has sponsored and will provide oversight for a registry of endovascular stent-grafts to ensure impartial, standardized reporting of long-term outcome data. Our relationship with industry bears constant vigilance, because we answer to very different masters, but these cooperative efforts cannot help but benefit our patients in the long run.

The Program Committee has been charged to view our annual proceedings with increasing creativity, incorporating emerging technologies and a variety of postgraduate courses. The activities of the Society for Vascular Medicine and Biology and the Society for Vascular Technologists have been associated with our annual meeting. We have been less successful with the Society of Cardiovascular and Interventional Radiology and have yet to address the interventional cardiologist in a constructive fashion. We need to take a hard look at whether our societies are meeting our current needs; I suspect they are not. Through the Program Committee and our new standing Committee for Endovascular Affairs, we must continue to seek productive working relationships with interventional radiologists and cardiologists, paralleling the multidisciplinary efforts evolving at our institutions.

In September 1996, the Joint Council's Strategic Planning Committee, affectionately known as the Gang of Eight, legally constituted the American Board of Vascular Surgery and thereby exerted the political leverage necessary to initiate changes in the organization of the American Board of Surgery.[1] The new subboard infrastructure represents an ongoing feasibility study with the potential to preserve the parent board's corporate oversight, yet provide functional indepen-

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Fig 1. Illustration by Rockwell Kent from Herman Melville's *Moby Dick*. New York: Random House; 1930.

dence for the subspecialty. I use the word potential advisedly, because I am aware of healthy skepticism on the part of many here, but the sub-board is a necessary step in the evolution of our specialty's governance. Rest assured, the American Board of Vascular Surgery remains legally constituted with strategic plans to proceed if necessary, although at considerable financial expense and with the loss of aggregate voice. I remain confident that the sub-board is being given the authority required to ensure the highest caliber of educational standards. Certification of the educational process, however, does not ensure its competent application throughout the course of a surgeon's career. The application of performance metrics to monitor competency currently rests with the individual institution, as I will mention later.

An effective Government Relations Committee, which ensures we remain informed about actions here in Washington that may affect health care in general and, more specifically, vascular surgery, has been developed. The committee provides a conduit able to transmit our concerns directly to the Health Care Financing Administration at the Bethesda campus and indirectly through the Relative Value Update Committee, on which we have just secured a seat for the next 2 years. As of January 1998, reimbursement for our Medicare beneficiaries was reduced 9% with the institution of the single conversion factor. Further changes in reimbursement for the practice expense component results in an additional 11% reduction, to be phased in within the next 4 years.[2] The net effect, adjusted for inflation, is an approximately 30% reduction in Medicare reimbursement, not only for carotid endarterectomy, but also for repair of aortic aneurysm and lower-extremity bypass grafting, our three signature arterial procedures.

The Balanced Budget Act of 1997 ensures that this situation is not likely to improve in the near future. Of the $115 billion required to balance the budget, 88% derives from Medicare.[3] As a result, projected operational losses among the Boston teaching hospitals for the current fiscal year range from $8 to $120 million. The University of Pennsylvania system faces a $175 million shortfall, and Stanford-UCSF must eliminate approximately 2000 positions. These losses are not sustainable, but will literally require an act of Congress, a new President, or a more militant physician organization to remedy. Our small society, with its membership of 1651, must maintain a strong alliance with other organizations and surgical specialties to ensure that a loud aggregate voice is heard in Washington. In my opinion, reduction in reimbursement to hospitals and physicians represents a far greater threat to our patients than any consideration of who administers an examination or which discipline manipulates the end of the catheter.

It is all too easy to lose sight of our prime purpose amid the aforementioned political efforts to assert our independence, accommodate interventionalists from other disciplines, and fight with government for economic survival. Our common goal is to promote the highest caliber of care for patients with any variation of vascular disease. I would like to emphasize a strategy that may provide the team best suited to achieve that goal.

Bearing in mind my literary heritage, perhaps you'll both understand and forgive the metaphor that struck me as I watched one of our interventionalists insert a 22F introducer into a jugular vein. Interventionalists of one sort or another have been around for some time. Let me introduce you to an earlier iteration, highly skilled in a very pragmatic application of remote intervention (Fig 1). Meet the Pequod's first harpooner, Queequeg who, along

with Yorpy, ranks among the most intriguing of my great great grandfather's characters. During a whaling voyage, on sighting a spout from the masthead, three or four longboats were lowered away for the chase. Each longboat was captained by one of the mates, whose share of the profits from the voyage was often incentive-based, proportionate to the number of successful encounters. The harpooner's share above ordinary seamen's wages often depended on the largess of his mate. The harpooner pulled first oar forward, appropriately positioned to stand in the bow and dart his iron some 30 feet astern of his target. After the strike, he would exchange places with the mate and assume the boatsteerer's position, aft at the steering oar. When the whale tired, the mate, now forward, placed his irons to claim the kill and his incentive bonus. Alas, the harpooner could only admire the mate's cash balance at the conclusion of the voyage. Until recently, how durable the metaphor! In most vessels, able seamen lived in the fo'c'sle. On the old whalers, however, the extraordinary skills of the harpooner were held in such high regard that they were allowed to berth and take their meals in the after quarters with the master and his mates. The harpooner and his mate were the critical team on which the success of the entire voyage depended.

Queequeg was, of course, much more than a skillful technician engaged in the chase for the white whale. He was a native islander from the South Seas and was extensively tattooed—one horrific apparition (Fig 2)! Ishmael was none too pleased to learn he had to share a bed at the Spouter Inn, and you can imagine his reaction on discovering his bedfellow was a savage. The subsequent development of Queequeg's character testifies to Melville's deep concern about the inequities of social and racial standing. His wife, Lizzy, was the daughter of Judge Lemuel Shaw, a Bostonian with abolitionist leanings. Melville's social tolerance was further reinforced by his experience with the natives inhabiting the Typee Valley in the Marquesas Islands; their inherent passive nature was usually misrepresented, and therefore, they were much feared. Ishmael's relationship with the harpooner, as it evolves throughout *Moby Dick*, reflects Melville's intellectual tolerance. Queequeg embodies fear of the unfamiliar and all things threatening, but, contrary to his terrifying appearance and propensity for mysterious ritual, he proved kind, thoughtful, and fiercely protective of his mates. He was revered by the crew, berthed with the officers, and became Ishmael's closest shipmate aboard. The ultimate irony occurred as the Pequod slipped beneath the shrouds of the sea. Up from the deep shot Queequeg's coffin, the life buoy to which Ishmael clung, sparing him from the final vortex. The harpooner played a vital role in the early whaling industry, not altogether dissimilar to our modern interventional counterparts, who, as vital members of our team, provide a set of skills that may be perceived either as threatening or complementary to our own. From strange bedfellows do trusted colleagues emerge.

Those of you who know me well understand I am aware of the attributes of individual performance in appropriate circumstances. I have been known to try to shave a few seconds off my best downhill time, much to the detriment of those sharing my airspace and in defiance of any shred of common sense! But other goals are best attained through the efforts of a team-approach that draws on the individual assets of each component, assets with which we are not all equally endowed. The brute force required for the coffee-grinders below decks contrasts sharply with the agility of the foredeck crew, yet both must work together with great precision to cross the finish line first. Because the whole is indeed often greater than the sum of its parts, we need the Queequegs, along with the mates and the master.

Yesterday's critical issues session and last month's meeting in Chicago testify to the increasing interest in the vascular center, a concept with the potential to create a collaborative environment by drawing on the assets of several medical disciplines. In 1992, Jimmy Yao asked me to present this concept at the Critical Issues Forum, based on our early efforts at Brigham to establish this multidisciplinary approach for our patients with systemic vascular disease. It proved to our very good fortune that David Robinson from National Institutes of Health was also a participant. I would like to review the history of this concept as it has played out, in hopes that some suggestions may prove useful in your individual practice environment.

Seventeen years ago, during the spring of 1982, I had a conversation with Victor Dzau along the Pike in the old Peter Bent Brigham, a long corridor, familiar to many of you, that has spawned a number of notable ideas, some of which have actually been good! Our conversation stemmed from my concern about our continued ability as surgeons to care for patients with vascular disease, based on the established template of an all-encompassing specialty that provided much of the primary care for patients with symptomatic atherosclerosis. There were three primary drivers underlying my concern.

The first and most important driver was our

aging patient population, the complex comorbidities of which presented an impressive challenge. An example of such a patient, and you will all recognize her, is a 72-year-old woman with type 1 diabetes mellitus and hypertension managed with Inderal. She was taking synthroid for reasons that were not altogether clear. Her significant coronary disease required isordil and intermittent nitroglycerine for angina, digoxin and lasix for congestive failure, and coumadin for her chronic atrial fibrillation. In spite of her progressive renal failure, she still took standard potassium supplements for her lasix and inderal for her hypertension, all of which were prescribed by three different physicians. She was given Trental for her peripheral vascular disease, and her persistent ischemic ulcer was carefully dressed with a tight Unna boot. She was given niacin and placed on a low cholesterol diet for her hyperlipidemia, which, along with her low protein diet for renal disease and low carbohydrate diet for diabetes, resulted in considerable confusion about what was left for her to eat. She had undergone a total hip replacement, and her degenerative arthritis required chronic nonsteroidals and prednisone. Her resultant gastritis was treated with Zantac, her anxiety with Xanax, and, little wonder, she had trouble sleeping and needed a touch of Halcion! She thus required 25 individual doses of 16 medications each day, which were prescribed by 11 subspecialists and her bewildered primary care physician. One or two office visits each week presented her with yet another daunting challenge in trying to arrange transportation, which is potentially more life-threatening in Boston than the underlying disease process, as is finding a parking space. Not infrequently, it proves more cost-effective to settle for a parking ticket.

The second driver was the rapidly changing field of cardiology, with its increasingly complex pharmacology, including ace inhibitors, calcium channel blockers, beta-blockers, and sophisticated antiarrhythmics, all with their specific idiosyncrasies and adverse interactions. Considering the similar progress in the management of diabetes mellitus, hypertension, and thromboembolic disorders, I could not see us, as surgeons, continuing to provide comprehensive care for our patients without some help, particularly in an academic environment with its inherent commitment to teaching and productivity in basic science. Catheter-based technology was developing rapidly, and it was clear that cardiologists would become preoccupied with the myocardium and adopt a progressively myopic view of systemic atherosclerosis. We needed a new subspecialty of medicine to provide care that included all manifestations of the underlying disease and more effective risk reduction. We managed to convince physician-in-chief Eugene Braunwald to create a Division of Vascular Medicine for our embryonic Vascular Center.

The third driver was the proven viability of percutaneous transluminal angioplasty, an approach that would gain wider acceptance with rapidly developing catheter technology. Because our angiographers were far more skilled with the business end of intravascular catheters and we had our hands full with our own surgical caseload, we welcomed their appropriate application of this emerging technology. Rather than diluting our surgical experience, endoluminal technology actually enhanced both surgical and interventional volume.

Our primary goal in initiating the center concept was to provide expeditious, but comprehensive, multidisciplinary care for our vascular patients. Yet there were obvious second derivatives for the educational and research missions of an academic institution. We were reasonably effective at educating ourselves about the benefits of vascular reconstruction, but the message was not getting to the referring primary care physicians. For instance, a patient with repetitive transient ischemic attacks and a 95% carotid stenosis was observed with great diligence for 5 months before referral. Severely ischemic toes were carefully observed for the better part of a year and progressed to dry gangrene long before we were asked to consider reconstruction. An abdominal aortic aneurysm was allowed to mature to a full eight centimeters with semiannual ultrasounds. A 67-year-old woman was admitted to the medical service of one of our finest hospitals in Boston with lower back pain and a low-grade fever. A retroperitoneal mass, which instantly prompted the diagnosis of lymphoma and a directed needle biopsy, was revealed by means of a computed tomography scan. The histologic examination proved compatible with old blood, a finding that so befuddled the attending physicians that they repeated the biopsy. The results proved similar, and, because her pain had subsided, she was declared stable and discharged. Two weeks later, of course, she returned for repair of her ruptured mycotic aneurysm. We have an ongoing need to educate our non-surgeon colleagues, and what better way than to provide multidisciplinary education during our training programs and to our referring physicians through a written longitudinal care plan at discharge?

For research in vascular disease, it was becoming increasingly difficult for a clinically dedicated surgeon

Fig 2. Illustration by Rockwell Kent from Herman Melville's *Moby Dick*. New York: Random House; 1930.

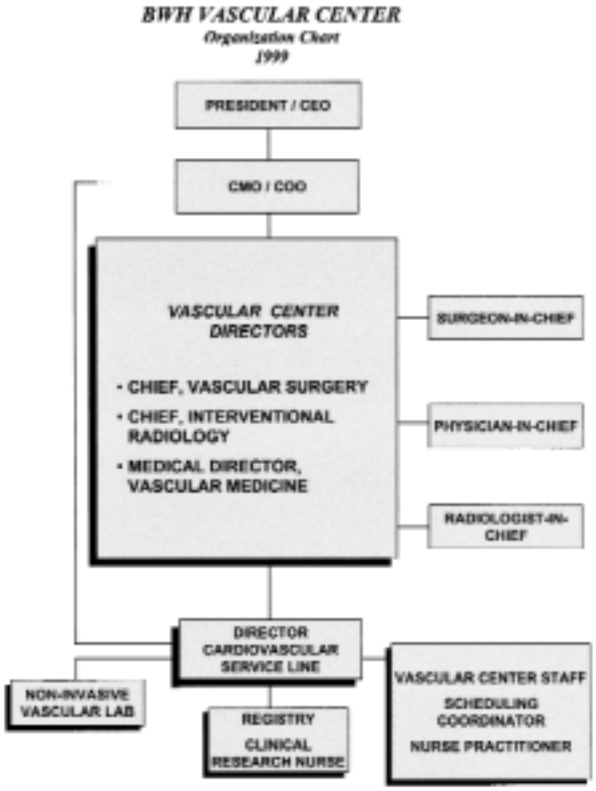

Fig 3. Organizational chart for the Vascular Center at the Brigham and Women's Hospital.

to maintain both a productive laboratory and the level of clinical skill required for a volume-dependent specialty. Study sections required higher proportions of time committed to the laboratory to successfully compete for the shrinking research dollar. Industrial sponsors demanded short-term return on investment for the benefit of their stockholders, precluding longer-range projects. Compliance with a variety of regulatory agencies and animal rights activists, especially in Massachusetts, proved time consuming. I came in one morning to find a plastic garbage bag containing two dead dogs outside my laboratory door, and on another occasion, the keyhole for the lock was irrevocably injected with epoxy. It was increasingly difficult for all except established investigators to develop the infrastructure necessary to maintain funding, compliance, and equipment for innovative research. There seemed great virtue in the concept of a multidisciplinary core facility, maintained by full-time, scientifically credible basic investigators, that could incorporate the more clinically inclined in both basic and translational investigations.

As we were developing our vascular center, it was clear we needed institutional support for both space and personnel. David Robinson at the National Heart, Lung, and Blood Institute and the members of our Society were able to secure funding for 15 academic awards of $5 million each for 5 years, designed to promote the interdisciplinary concept. The first awards were given to Mark Creager at our center and John Cook, who had headed west with Victor Dzau to Stanford. These awards required institutional support and, therefore, provided great impetus to develop an organizational infrastructure and to allocate appropriate space. The award also facilitated creation of fellowships in vascular medicine and the Society for Vascular Medicine and Biology.

The organizational structure of our multidisciplinary center is hospital based (Fig 3). The division chiefs work together as the operational team, and although I was the initial director, we have rotated the position among the disciplines to allow routine decisions to be made expeditiously by a single person. However, because all three division chiefs are co-directors, major decisions represent either consensus or compromise, and all continue to report to the chair of their respective academic departments. Operational decisions about patient care, critical pathways, and quality assurance are made jointly, and their imple-

mentation is facilitated by a service line administrator. Our nurse practitioner, a critical member of the clinical team, facilitates communication with referring physicians, patient admission, and the subsequent transition to home or subacute facility. Our scheduling coordinator must juggle individual surgeons' schedules with bed availability, the operating room schedule, and the patient's family obligations, while ensuring proper authorization from the third-party payer.

The major objective of the center is to provide optimal care with maximal efficiency. Patients are referred primarily to the vascular internist or surgeon and, on occasion, directly to the interventionalist. We make every effort to have the patient seen by both internist and surgeon or radiologist during the first visit. If an intervention is indicated for the specific clinical problem, our coordinator selects a date, and the patient is sent for routine laboratory work. Aside from duplex scanning, most elective imaging studies must be scheduled in advance and therefore require a second trip, coordinated with any further cardiac evaluation necessary. Every attempt is made to streamline the process to avoid repeat visits, so the patient next returns at first light on the morning of the surgical or endovascular procedure.

During admission, patients are observed both by members of the vascular medicine and either surgery or radiology departments until discharge. Our interventional radiology service admits its patients for overnight observation after routine interventions, a privilege that has greatly relieved our overburdened surgical staff of considerable paperwork. The vascular internist generates a comprehensive longitudinal care plan that incorporates the preoperative evaluation, hospital course, and recommendations for management of the various comorbidities. This report is sent to referring and primary care physicians when the patient is discharged. Our fear that this effort would be perceived as meddlesome has not been borne out, because most of our referring physicians are appreciative of the educational opportunity, which is reflected in part by the growth of our volume.

In an effort to determine whether we were providing efficient, high-caliber care, we established the usual metrics to track activity and outcomes that are reviewed at our monthly conference. During the last 3 years, the number of visits to the vascular medical clinic has steadily increased. The number of interventions in the angiography suite is followed, along with outcome parameters, in our registry. There has been a logarithmic 65% increase in endovascular interventions, which now number more than 800. Finally, the surgical volume has paralleled the upward trend, with a 29% increase, or currently 1100 procedures. So much for volume, how about quality?

We have published our overall short-term results, which document a 1.6% 30-day operative mortality for all surgical reconstructions, but that is only one point in time and does not provide ongoing surveillance of individual competence. We developed a set of performance metrics for our three most common primary surgical procedures, because they are reasonably standardized and allow comparison among surgeons. After all, the earned run average, or ERA, of every pitcher in major league baseball is available in the newspaper everyday. What's more important, baseball or the brain? Shouldn't a surgeons' earned stroke average, or ESA, be available as well? We therefore track individual surgeons' operative morbidity, average patient length of stay, and operating time to allow constructive quality assurance (Fig 4). Cost per intervention cannot be far away! The process could remain anonymous to everyone except the division chief, but in our center, all laundry is labeled, which ensures that all interventions, irrespective of discipline, are held to uniform standards.

Critical to our academic mission, all three divisions participate in clinical or translational research projects, which currently include trials to evaluate atorvastatin and protein kinase C inhibition for claudication and the effect of estradiol on vasoreactivity. Clinical studies of the influence of platelet aggregation and the efficacy of hirudin on vein graft patency are ongoing, as are aortic endograft trials and evaluation of a peripheral stent-graft. Sources of variability in Doppler-derived estimates of carotid stenosis are being actively pursued in our noninvasive laboratory. In addition, we are between the first and second phases of a human gene transfection protocol with a decoy transcription factor designed to minimize smooth muscle hyperplasia in vein grafts. Critical members of this translational team include our clinical research nurse, who oversees our contracts, facilitates institutional review board approval, and maintains compliance with the industry's clinical monitors, the Food and Drug Administration and the Health Care Financing Administration. A second vital member of the team maintains our clinical vascular registry.

The Division of Vascular Medicine provides oversight for basic science research and maintains the core infrastructure for the center. The vascular internists concentrate on endothelial dysfunction in diabetes mellitus, aspects of thromboembolic disease, and arterial dysfunction in the context of atherogenesis and intimal hyperplasia. Mike Conte in our surgical divi-

DIVISION OF VASCULAR SURGERY

A-YTD OPERATIVE MORBIDITY FOR PRIMARY PROCEDURES

SURGEON	PROCEDURE		STROKE	STROKE/ DEATH	DEATH	MI	30-DAY OCCLUSION	AMPUTATION	
#1	CEA	84	0	0	0	0	0	N/A	
	AAA	44	0	0	0	0	0	N/A	
	I-VG	33	0	0	1 (3.0%)	0	1 (3.0%)		0
#2	CEA	65	0	0%	0	0	0	N/A	
	AAA	23	0	0	1 (4.3%)	0	0	N/A	
	I-VG	28	0	0	1 (3.6%)	0	1 (3.6%)		0
#3	CEA	48	1 (2.0%)	1 (2.0%)	0	0	0	N/A	
	AAA	26	0	0	0	0	0	N/A	
	I-VG	40	0	0	0	1 (2.5%)	1 (2.5%)		0
#4	CEA	27	0	0	0	0	0	N/A	
	AAA	11	0	0	0	0	0	N/A	
	I-VG	26	0	0	1 (3.8%)	0	2 (7.7%)		0
SUBTOTAL	CEA	224	1 (0.9%)	1 (0.9%)	0	0	0	N/A	
	AAA	104	0	0	1 (1.4%)	0	0	N/A	
	I-VG	127	0	0	3 (2.4%)	1 (0.8%)	5 (3.9%)		0
TOTAL		456	1 (0.2%)	1 (0.2%)	4 (0.9%)	1 (0.2%)	N/A	N/A	

Fig 4. Outcome metrics for primary signature procedures by individual surgeons within the Division of Vascular Surgery at the Brigham and Women's Hospital.

sion is applying gene transfer strategies to improve the outcomes of vascular procedures. Present funding derives from a SCOR grant, two Program Projects, an R37, seven RO1s, and a KO8. An established investigator award from the American Heart Association and 10 industry-sponsored awards keep us all very busy in research activities.

Several objectives have not yet been met, including combined daily work rounds with the attending staff. We hold our multidisciplinary teaching conference on a regular weekly basis, but because of significant differences in circadian rhythm between surgeons and internists, we have been unable to sustain daily rounds at the attending level. The fellows and residents, however, are in constant communication throughout the day, so there is no lack of interchange among the disciplines. Our vascular fellows have a structured hands-on rotation in the angiography suite, and reciprocity is extended to our interventionalists, so that endovascular procedures in the operating room are a team effort.

A second clinical goal that has proven elusive is a successful risk-reduction program. We have tried several approaches to smoking cessation and weight control, all of which have failed, primarily because of a notable lack of enthusiasm on the part of our patients. We continue to provide motivation and opportunity, but seem unable to overcome the determined inertia of the hardcore soul-at-risk!

Finally, we have not achieved multidisciplinary economic integration, nor has it been aggressively sought, because it is not crucial when all components are working at capacity. Assuming there is an economy left to integrate, there are several alternatives that eliminate competition for patients among disciplines and provide economic stability while adapting to emerging

technology. Works-in-progress are ongoing and include New York University, Washington University, and the University of Rochester, among others. A center may adopt the senior partner model, in which existing members are automatically vested and revenue is distributed equally among them. Junior recruits might receive an initial salary before becoming vested as a senior partner. Alternatively, the salary guidelines of the Association of American Medical Colleges or historic local salaries may be used as references for establishing relative equity, with funds ultimately distributed proportionate to the historic contributions from each discipline. The Association of American Medical Colleges' average salaries for academic rank according to specialty can be used to determine the aggregate professional revenue anticipated for a specific component of the center. For instance, in the case of our Division of Vascular Surgery, with a full professor as chief, two associate professors, and an assistant professor, the aggregate academic average may be ascertained. When combined with similar figures calculated for the other two divisions, relative proportions of the total may be determined. Based on this method, our Division of Vascular Surgery accounts for 42%, Vascular Medicine for 26%, and Interventional Radiology for 32% of the total income pool. If salary support derived from research grants is excluded and relative contributions determined solely on the basis of clinical income, the proportions change accordingly. Going forward, professional funds may be distributed to each division according to these proportions, irrespective of the total. Each division chief, after contributing to the welfare of the dean and department chair, may then distribute the funds equally or according to rank or seniority. Competition is therefore minimized, as are the effects of changing technology on individual disciplines with time.

Little did we know that the economic constraints of the late 1990s, resulting from the Balanced Budget Act of 1997, would wreak such havoc on our health care system. Hospitals of all descriptions and individual clinicians must use every trace of ingenuity to achieve financial stability. A well-coordinated, cost-effective multidisciplinary team is required to maintain the extraordinary caliber of medical care that our patients have come to expect and deserve. As conventional departmental infrastructure becomes dysfunctional, the new working relationships that translate into best practice cannot be imposed either by executive or committee, but must be worked out through trial and error at the ground level in one's own environment with time. Rather than prey on vulnerabilities, we need to build on each other's assets, irrespective of clinical discipline, especially during these economically challenging times. From the strangest of bedfellows do the most important ingredients emerge: the basic trust and mutual respect that underlie an effective multidisciplinary, disease-focused approach to vascular disease.

I thank you all for the singular honor to have served as your officer and president. It has been the effort of an extraordinary team, the most important members of which are my best friends in the front row. We are truly grateful for so many of you who have responded to our need and applied the variety of your talents for the benefit of our specialty and, therefore, our patients.

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